

REMARKS

Applicants request favorable reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks.

Claims 230 through 249 are pending in the present application, with Claims 230, 242, and 244-247 being independent.

Claims 242 and 244-247 have been amended. Applicants submit that no new matter has been added.

Claims 230-239 and 242-249 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,050,690 (Shaffer, et al.). Claims 240 and 241 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shaffer, et al. in view of U.S. Patent No. 5,341,155 (Elrod, et al.). Applicants respectfully traverse these rejections.

Independent Claims 230, 242, and 244-247 each recite the generating of a difference signal, for each photoelectric conversion element, corresponding to the difference between an output of the photoelectric conversion element when the light cycle is at a first point and an output of the photoelectric conversion element when the light cycle is at a second point. These difference signals concern the output of *the same* element at different points in the light cycle. The independent claims have been amended to further clarify this point.

In contrast, the patent to Shaffer, et al. discloses that signal intensities of adjacent pixels in a single row are compared. When a sufficient difference in signal intensities is found in a single row, the apparatus determines that an edge of an image projected on the CCD sensor 40 has been found, since at such an edge the difference between the light and dark portions of an image are at their largest. (column 5, lines 37-49)

But any difference signal generated by this process results from comparing the output of different pixels, not the *same* pixel, as contemplated in the difference generating means and steps recited in independent Claims 230, 242, and 244-247. This difference between independent Claims 230, 242, and 244-247 and the patent to Shaffer, et al. reflects the different purposes of these inventions. The process described by the Shaffer, et al. patent determines the edge of an image projected on the CCD sensor 40, while the difference signal generating means and steps recited by independent Claims 230, 242, and 244-247 can determine the location of light having a cyclically varying intensity. For this reason, Applicants submit that the Patent Office has not satisfied its burden of proof to establish anticipation of the independent claims over the Shaffer, et al. patent.

In addition, the independent claims recite that the threshold is set on the basis of a level of the difference signal obtained from each conversion element. In contrast, the patent to Shaffer, et al. does not indicate how the thresholds V_H and V_L (discussed at column 6, line 20 through column 7, line 1) are generated. Paragraph 3 (c) of the Office Action states that these thresholds are set on the basis of the difference signals, but the passage to which the Office Action refers (column 6, lines 15, 16, 35, and 36) merely discusses the comparing of different pixels with these predetermined thresholds and the adjusting of the position of a projection lens 26 to minimize the number of pixel values between the two thresholds, to focus the lens 26.

For the foregoing reasons, Applicants submit that independent Claims 230, 242, and 244-247 are patentable over the cited art. The dependent claims are believed patentable for the same reasons as the independent claims, as well as for the additional features they recite.

In view of the foregoing, this application is believed to be in condition for allowance. Favorable reconsideration, entry of these amendments, withdrawal of the outstanding rejections, and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, DC office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'B. L. Klock', is written over a horizontal line.

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